

REMARKS

Claims 1, 2, 5-10, 13-15, and 17-22 are pending in this application, of which claims 1, 9, and 17 are independent. In this Amendment, claims 1, 9, and 17 have been amended. Care has been exercised to avoid the introduction of new matter. Support for this Amendment can be found in, for example, Figs. 1, 5, 8, and 19-22; and page 46, line 26 to page 62, line 20 of the specification.

Patentability Under 35 U.S.C. § 103

Claims 1, 2, 5-10, 13-15 and 17-22 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Aman et al. (U.S. Patent No. 5,603,029, hereinafter “Aman”) in view of Bernardin et al. (U.S. Patent No. 7,093,004, hereinafter “Bernardin”).

In the statement of the rejection, the Examiner admitted that “Aman et al. does not explicitly teach comparing judgment information or omitting a step in the start or finish process of the designated business service that coincides with a step of a business service that has already been reserved with the information processing module as claimed” (on page 4 of the Office Action). However, the Examiner asserted that Bernardin teaches the missing features of Aman and concluded that it would have been obvious to modify the method of Aman based on the teachings of Bernardin to arrive at the claimed subject matter.

However, this rejection is respectfully traversed because Aman and Bernardin, individually or in combination, do not disclose or suggest a load balancing method including all the limitations recited in independent claim 1. Specifically, the applied combination does not teach, among other things, the following limitations recited in claim 1:

registering a business configuration definition of each business service including a schedule of a corresponding business service in a business configuration management repository of said storage by a configuration unit of said system;

registering performance information for the plurality of information processing modules in a performance management table of said storage, respectively;

comparing the judgment information of an already-reserved business service with the judgment information of the designated business service, and thereby selecting one or more information processing modules of said plurality of information processing modules whose performance information stored in the performance management table satisfies the service level objective in each partial schedule, reserving the information processing modules selected satisfying the service level objective in the partial schedules as information processing modules for executing the designated business service in the schedule in said storage, and omitting a step in a start process or finish process of the designated business service that coincides with a step of a business service that has already been reserved with the information processing module; and

executing the designated business service with the plurality of information processing modules reserved in the receiving step.

According to the specification, load balancing or load distribution among a plurality of information processing modules can be achieved. Information processors in the idle state can be assigned to other services of business depending on the type of business and the time of day (see page 4, lines 18-22 of the specification).

Aman teaches a load balancing system assigning new work to a server by referring to policy information 135 shown in Figs. 1 and 11, and determining whether any of the systems within the set of ELIGIBLE_SYSTEMS contains a system that does not have an application server (see Figs. 12A and 12B; and column 30, lines 1-16).

Bernardin teaches using execution statistics to select tasks for redundant assignment in a distributed computing platform in which adaptive scheduling and caching techniques provide for an efficient resource and/or network utilization of an intermittently-available and interruptible computing resource in distributed computing systems (the abstract). For example, Bernardin has Discriminators that are filters to be attached to Tasks or Engines to impose selection criteria during Broker's assignment of Tasks to Engines (column 8, lines 43-64; and column 13, lines

35-54). When an engine completes a task, it notifies the broker, and the broker searches both the pending and waiting task lists for the corresponding job, and if the task appears on either list, the broker removes it from both (see column 5, lines 60-65; column 6, lines 1-3; and column 11, lines 14-26 and 40-50).

However, none of Aman and Bernardin teach all the limitations of claim 1, for example, “registering performance information for the plurality of information processing modules in a performance management table of said storage, respectively,” and “executing the designated business service with the plurality of information processing modules reserved in the receiving step,” as recited in independent claim 1.

Furthermore, several assertions in the Office Action are illogical. The Examiner asserted that column 8, lines 43-64; and column 13, lines 35-54 of Bernardin teach the claimed registering step. The Examiner appears to identify the step of attaching Disclaimers to Tasks or Engines in Bernardin as the claimed registering step. The Discriminators are essentially filters that can be attached to Tasks or Engines to impose section criteria during Broker’s assignment of Tasks to Engines. The cited portion of Bernardin also discusses a method for assigning tasks to processing resources. It is unclear for Applicants as to what elements correspond to, among other things, the claimed judgment information indicating contents of the start process and finish process of each business service.

The Examiner also refers to column 8, lines 64-68; column 9, lines 1-6; column 12, lines 43-61; and column 15, lines 5-25 of Bernardin to assert that the reference teaches the claimed comparing step. It appears that the Examiner identified the step of assigning tasks to engines based on discriminators, and the step of assigning to available processing resources, as the claimed comparing step. Applicants invite the Examiner’s attention to the claimed limitation

“comparing the judgment information of an already-reserved business service with the judgment information of the designated business service...” (emphasis added). Based on the claimed limitations, Bernardin should, for example, compare one discriminator with another discriminator, one task with another task, or one available processing resource with another available processing resource. Bernardin does not disclose any such comparison. Accordingly, the Examiner’s interpretation of Bernardin is unclear. Applicants believe that this uncertainty of the interpretation of Bernardin was caused by the Examiner who did not clarify what elements correspond to the claimed judgment information indicating contents of the start process and finish process of each business service.

The Examiner further cited column 5, lines 60-65; column 6, lines 1-3; and column 11, lines 14-26 and 40-50 of Bernardin, and asserted that the reference teaches the claimed omitting step. The cited portions of Bernardin describe, for example, that when an engine completes a task, it notifies the broker, and the broker searches both the pending and waiting task lists for the corresponding job, and if the task appears on either list, the broker removes it from both. On the other hand, claim 1 recites “omitting a step in a start process or finish process of the designated business service that coincides with a step of a business service that has already been reserved with the information processing module.” The claimed omitting step is performed as a result of the above-discussed registering and comparing steps. However, the portions of Bernardin cited against the claimed omitting step do not appear to have any relation with, for example, the assigning of Disclaimers to Tasks or Engines.

Therefore, the Examiner’s assertions regarding Bernardin are illogical, and do not support a *prima facie* basis to deny patentability to the claimed subject matter.

Based on the foregoing, Aman and Bernardin, individually or in combination, do not disclose or suggest a load balancing method including all the limitations recited in independent claim 1. Dependent claims 2-8 are also patentably distinguishable over Aman and Bernardin at least because these claims respectively include all the limitations recited in independent claim 1. Applicants, therefore, respectfully solicit withdrawal of the rejections of the claims and favorable consideration thereof.

The above discussion is applicable to independent claims 9 and 17 because these two claims also recite the limitations (e.g., the “reservation management processing unit”) similar to those recited in claim 1. Further, dependent claims 10-15 and 18-22 are also patentably distinguishable over Aman and Bernardin at least because these claims respectively include all the limitations recited in independent claims 9 and 17. Therefore, Applicants respectfully solicit withdrawal of the rejections of the claims and favorable consideration thereof.

Conclusion

In view of the above remarks, Applicants submit that this application should be allowed and the case passed to issue. If there are any questions regarding this Amendment or the application in general, a telephone call to the undersigned would be appreciated to expedite the prosecution of the application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper,

Application No.: 10/720,758

including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

McDERMOTT WILL & EMERY LLP



Tomoki Tanida

Registration No. 60,453

600 13th Street, N.W.
Washington, DC 20005-3096
Phone: 202.756.8000 KEG:TT
Facsimile: 202.756.8087
Date: March 25, 2009

**Please recognize our Customer No. 20277
as our correspondence address.**